

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
15 January 2004 (15.01.2004)

PCT

(10) International Publication Number
WO 2004/006218 A2

(51) International Patent Classification⁷:

G09G

(74) Agents: SUZUYE, Takehiko et al.; c/o SUZUYE & SUZUYE, 7-2, Kasumigaseki 3-chome, Chiyoda-ku, Tokyo 100-0013 (JP).

(21) International Application Number:

PCT/JP2003/008670

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(22) International Filing Date:

8 July 2003 (08.07.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

2002-199730

9 July 2002 (09.07.2002) JP

(71) Applicant (for all designated States except US): CASIO COMPUTER CO., LTD. [JP/JP]; 6-2, Hon-machi 1-chome, Shibuya-ku, Tokyo 151-8543 (JP).

(71) Applicant and

(72) Inventor: HATTORI, Reiji [JP/JP]; 200-1-109, Meishamachi, Nishi-ku, Fukuoka-shi, Fukuoka 819-0004 (JP).

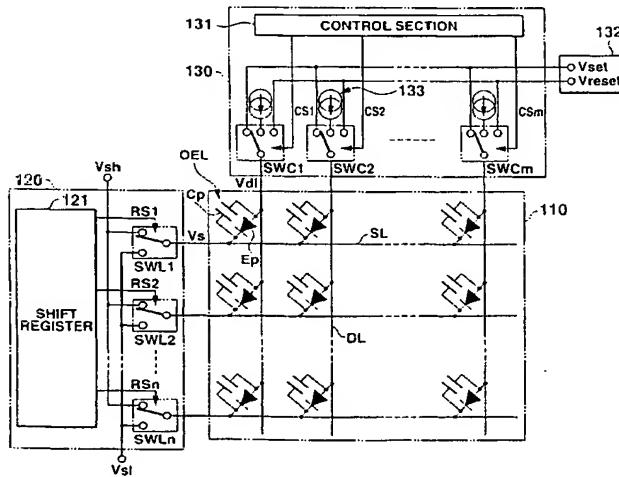
(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report

[Continued on next page]

(54) Title: DRIVING DEVICE, DISPLAY APPARATUS USING THE SAME, AND DRIVING METHOD THEREFOR



(57) Abstract: A driving device which supplies a current to a plurality of current-driven optical elements (Ep) to drive the optical elements includes at least a driving current supply circuit (133) which supplies a driving current to each optical element for a predetermined period, and a control voltage applying circuit (132) which applies a charge voltage having a voltage value corresponding to a voltage to be applied to each optical element using the driving current, before the driving current is supplied. The driving current supply circuit (133) includes a single constant current generating circuit (10A, 10B, 10C) which outputs a constant current having the same current value as that of a driving current, and a plurality of current storage circuits (30A, 30B, 30C) which sequentially receive and hold the constant current and output the driving current on the basis of the constant current.

WO 2004/006218 A2